

0069173

**SAF-RC-001**  
**Industrial Hygiene Sampling**  
**FINAL DATA**

**NO DISTRIBUTION REQUIRED**

**COMMENTS:**

SDG

06I-0097-01

SAF-RC-001

Rad only    ☒ Chem only    Rad & Chem

☒ Complete    Partial

**300 Area 303M Bldg**

**RECEIVED**  
MAR 29 2006  
**EDMC**



## Cover Page

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Report Identification Number: 06I-0097-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303140-J451 R303M0 J451  
Payroll#: 73513



### Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
09 Jan 2006	J10RT2	06I00703	NMAM 7300M	G060B00L	MCE
09 Jan 2006	J10RT3	06I00704	NMAM 7300M	G060B00L	MCE
09 Jan 2006	J10RL9	06I00705	NMAM 7300M	G060B00L	MCE

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Name: Lisa M. Reid  
Title: Chemist  
Date: January 12, 2006



## Case Narrative Page

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Report Identification Number: 06I-0097-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF#: RC-001 / R303140 J451  
Payroll#: 73513

**General Set Information:** There are 3 samples in set 06I-0097-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

**Method Summary:** Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

**Sample Preparation:** All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

**Holding Times:** The holding times were met for both sample preparation and analysis.

**Instrument Calibration:** Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

**Initial and Continuing Calibration Verification Analysis:** Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

**Initial and Continuing Calibration Blank Analysis:** No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

**Method Blank Analysis:** No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

**Dilution(s):** NA.

**Laboratory Control Sample and Duplicate Analysis:** One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

**Replicate Analysis:** One sample was replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

**Flagging Codes:** None

**Nonconformance/Corrective Action Report (NC/CAR):** N/A

**Sample Calculation:** The final results are calculated by the following equation:

Final result for aqueous samples ( $\mu\text{g/sample}$ ) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ( $\mu\text{g/L}$ )

B = Concentration factor from sample preparation

=  $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation:  $(1 \mu\text{g/L}) \times (0.025 \text{ L/sample}) \times (1) = 0.025 \mu\text{g/sample}$

**Miscellaneous Comments:** None.



## Report Page

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Report Identification Number: 06I-0097-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#: RC-001 / ~~R303140 J451~~

Payroll#: 73513 R303M0 J451

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium $\mu\text{g}/\text{sample}$		Beryllium $\mu\text{g}/\text{m}^3$		Air Volume L	
J10RT2	06I00703	11 Jan 2006	<0.01	U	**		0.0	
J10RT3	06I00704	11 Jan 2006	<0.01	U	**		0.0	
J10RL9	06I00705	11 Jan 2006	<0.01	U	<0.029	U	341	
Limit of Detection (LOD)			0.01					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead $\mu\text{g}/\text{sample}$		Lead $\mu\text{g}/\text{m}^3$		Cadmium $\mu\text{g}/\text{sample}$	
J10RT2	06I00703	11 Jan 2006	<1.	U	**		<0.08	U
J10RT3	06I00704	11 Jan 2006	<1.	U	**		<0.08	U
J10RL9	06I00705	11 Jan 2006	<1.	U	<2.9	U	<0.08	U
Limit of Detection (LOD)			1.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium $\mu\text{g}/\text{m}^3$	
J10RT2	06I00703	11 Jan 2006	**	
J10RT3	06I00704	11 Jan 2006	**	
J10RL9	06I00705	11 Jan 2006	<0.230	U
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.



## QC Summary Page

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Report Identification Number: 06I-0097-01  
Subcontract Number: 0000X-BO-G0058-B-Mod#4  
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby  
Laboratory Identification Number: DCHM  
SAF: RC-001 / R303140 J451  
Payroll#: 73513

Batch ID: G060B00L

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-239930-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-239930-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-239930-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-239930-1	LCS	Beryllium	µg/sample	10.4	NA	10.0	104.	NA
QC-239930-1	LCS	Lead	µg/sample	104.	NA	100.	104.	NA
QC-239930-1	LCS	Cadmium	µg/sample	32.1	NA	30.0	107.	NA
QD-239930-1	LCSD	Beryllium	µg/sample	10.6	10.4	10.0	106.	1.84
QD-239930-1	LCSD	Lead	µg/sample	107.	104.	100.	107.	3.53
QD-239930-1	LCSD	Cadmium	µg/sample	32.7	32.1	30.0	109.	1.96

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = ( (|\text{LCS} - \text{LCSD}|) / ((\text{LCS} + \text{LCSD})/2.0) ) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = ( (|\text{MS} - \text{MSD}|) / ((\text{MS} + \text{MSD})/2.0) ) * 100.$

$LD \text{ Relative Percent Diff.} = ( (|\text{Parent} - \text{LD}|) / ((\text{Parent} + \text{LD})/2.0) ) * 100$

101.0097.01



### CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: <b>Veta D. Jones</b>		Company Contact Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator Joan H. Kessner		Data Turnaround									
Payroll #: <b>73513</b>		Sampling Location <b>303 M Building 300 Area</b>		SPECIAL INSTRUCTIONS All relevant COAs must be provided: <b>R303MO J451</b> ANALYSIS METHOD (SPECIFIC): <b>NIOSH 7300</b>		SAP No. RC-001		24 Hours									
Type of Sample: <b>Personal</b>		Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____		Method of Shipment <b>FED Ex</b>		Bill of Lading/Air Bill No. <b>8541 9337 5292</b>											
Shipped To: <b>Data Chem Salt Lake City</b>		POSSIBLE SAMPLE HAZARD/REMARKS <b>Be, Pb, Cd</b> Special Handling and/or Storage <b>NA</b>		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.)		No	No	No	No	No	No	No			
SAMPLE ANALYSIS					Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Airborne							
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm <sup>2</sup>	Comments													
J10R12	A	1-9-06	NA	Blank	NA	X	X	NA	NA	X	1-9-06						
J10R13	A	1-9-06	NA	Blank	NA	X	X	NA	NA	X							
J10R19	A	1-9-06	341	personal	NA	X	X	NA	NA	X							

WCH-SH-202 (08/29/2005)

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DataChem Laboratories, Inc.  
960 West Levoy Drive  
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700  
FAX: (801) 268-9992

Web Page: [www.datachem.com](http://www.datachem.com)  
E-mail: [lab@datachem.com](mailto:lab@datachem.com)

Enter on line below the first Sample Number from Page One:

J10RT6

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-9-06 1130	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-9-06 1630
3746 / 116 Bldg		3746 Building, Rm 116, locked cabinet	
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1500	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1500
Goldie Malton		RZ Steffler R.J. Steffler	
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
RZ Steffler R.J. Steffler		Fed Ex	
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
Fed Ex		Meredith Edwards	
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
Meredith Edwards			
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530	Received By/Initials: <i>[Signature]</i>	DATE / TIME 1-10-06 1530
LABORATORY SECTION	Received By <i>[Signature]</i>	Title Meredith Edwards	DATE / TIME 1-10-06 1530

REVIEWED BY:

PRINT/SIGN NAME

DATE:

WCH-SH-202 (08/29/2005)

Page \_\_\_\_ of \_\_\_\_



### CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

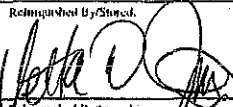
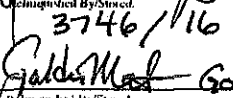
Collector: <b>Vella D. Jones</b>	Company Contact <b>Denise A. Pitts and Henry W. Ruby</b>	Telephone No. <b>531-1229</b>	Project Coordinator <b>Joan H. Kessner</b>		Data Turnaround <b>24 Hours</b>							
Payroll #: <b>73513</b>	Sampling Location <b>303 M Building 300 Area</b>	SPECIAL INSTRUCTIONS All relevant COAs must be provided: <b>R303M0 J451</b> ANALYSIS METHOD (SPECIFIC): <b>NIOSH 7300</b>		SAF No. <b>RC-001</b>	Method of Shipment <b>FED EX</b> Bill of Lading/Air Bill No. <b>8541 9337 5292</b>							
Type of Sample: <b>Personal</b>	Wipe Sample Media: Ghost <input type="checkbox"/> Yes <input type="checkbox"/> No Other _____											
Shipped To: <b>Data Chem Salt Lake City</b>	POSSIBLE SAMPLE HAZARD/REMARKS <b>Be, Pb, Cd</b>	MATRIX A - AIR WI - WIPE X - OTHER	Preservation (i.e., cooling required, etc.)	No	No	No	No	No	No			
Special Handling and/or Storage <b>NA</b>	SAMPLE ANALYSIS			Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Cadmium Airborne			
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area ____ cm <sup>2</sup>	Comments								
<b>J1ORT2</b> <b>J1ORT6</b>	<b>A</b>	<b>1-9-06</b>	<b>NA</b>	<b>Blank</b>	<b>NA</b>	<b>X</b>	<b>X</b>	<b>NA</b>	<b>NA</b>	<b>X</b>	<b>1-9-06</b>	
<b>J1ORT3</b> <b>J1ORT5</b>	<b>A</b>	<b>1-9-06</b>	<b>NA</b>	<b>Blank</b>	<b>NA</b>	<b>X</b>	<b>X</b>	<b>NA</b>	<b>NA</b>	<b>X</b>		
<b>J1ORL9</b>	<b>A</b>	<b>1-9-06</b>	<b>341</b>	<b>personal</b>	<b>NA</b>	<b>X</b>	<b>X</b>	<b>NA</b>	<b>NA</b>	<b>X</b>		
<b>COPY</b>												
<b>FIELD SAMPLE COPY</b>												

Enter on line below the first Sample Number from Page One:

J10RT6

# CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored:  Yetta D. Jones 3746 / 116 Bldg	DATE / TIME 1-9-06 1630	Received By/Stored: 3746 Building, Rm 116, locked cabinet	DATE / TIME 1-9-06 1630
Relinquished By/Stored:  Goldie Malhan	DATE / TIME 1-10-06 1500	Received By/Stored: RZ Steffler R. Z. Steffler	DATE / TIME 1-10-06 1500
Relinquished By/Stored: RZ Steffler R. Z. Steffler WCH	DATE / TIME 1-10-06 1530	Received By/Stored: Fed Ex	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

PRINT/SIGN NAME